## **MontCAS**



Guide to Interpreting
the 2008
Criterion-Referenced Test and
CRT-Alternate Assessment Reports

## IMPORTANT PHONE NUMBERS

If you require assistance, it's readily available through the offices listed below.

## • For information about program policy issues or incorrect data, contact:

Judy Snow, State Assessment Director

Phone: (406) 444-3656 Email: jsnow@mt.gov

## • For information about CRT program administration or shipping issues, contact:

Dan Verdick, Montana CRT Program Manager

Phone: (800) 431-8901, Extension 2220 Email: verdick.dan@measuredprogress.org

## • For information on CRT-Alternate policy issues, contact:

**Timothy Harris** 

PI Division of Special Education

Phone: (406) 444-4429 Email: tharris@mt.gov

## • For information about CRT-Alternate program administration or shipping issues, contact:

Lynn Albee, Montana CRT-Alternate Program Manager

Phone: (800) 431-8901, Extension 2309 Email: albee.lynn@measuredprogress.org

## For information about ELL/LEP, contact:

Lynn Hinch, OPI

Phone: (406) 444-3482 Email: lhinch@mt.gov

## • For information about Title I, contact:

B.J. Granbery, OPI Phone: (406) 444-4420 Email: bgranbery@mt.gov

## • For information about students with Migrant status, contact:

Angela Branz-Spall, OPI Phone: (406) 444-2423 Email: angelab@mt.gov





The primary purpose of this guide is to support local educators' use of test data to better serve the academic needs of students and to evaluate and improve curriculum and instruction. We hope you find this guide useful as you review the results for your school or system.

If you have any suggestions about ways in which we can improve this guide in future years or if you have questions after reviewing this guide or its reports, please contact Judy Snow, State Assessment Director, Office of Public Instruction (OPI) at (406) 444-3656 or jsnow@mt.gov.

Additional information about the Criterion-Referenced Test (CRT) and the CRT-Alternate Assessment, including Montana's content standards, can be found in Appendix A of this manual and on OPI's Web site: www.opi.mt.gov.

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## THE TEST

The Criterion-Referenced Test (CRT) and the CRT-Alternate Assessment are designed to measure student acquisition of the knowledge and skills in Montana's content standards for reading, mathematics, and science. The assessments in reading, mathematics, and science were developed to provide information at the student, class, school, and system level.

## BASIS FOR RESULTS

## **CRT**

In the CRT, the pool of test items in each grade and subject area was divided into two categories:

- 1. The first category of items is common items that appeared in all forms of the test and were completed by all students. Student, school, system, and state results are based only on these common items, 50% of math and reading, and 100% of science are released annually at the time the reports are shipped to system test coordinators and posted on the Office of Public Instruction (OPI) Web site (www.opi.state.mt.gov).
- 2. The second category of items is field test items. The remaining items in a grade/subject area were divided among 8 different forms of each test; each student completed one form. These items are called field test items. A portion of the 2008 field test items will become the set of common items in spring 2009.

## CRT-ALTERNATE ASSESSMENT

The CRT-Alternate Assessment is a pointin-time test that examined how students
performed in relation to performance
indicators that were expanded from the
Montana reading, mathematics, and science
standards and benchmarks. Students
participated in an age-appropriate activity for
which the teachers were given a script, written
directions, and scaffolding levels. Students
were encouraged to engage in the activity
and showed performance on the indicators
through appropriate prompting by the teacher
administering the activity.

The teacher who administered the activity observed and scored the student on each indicator. The test activity required evidence to be collected based on the products that were created during the course of the assessment. Templates were provided for all evidence that was required.

## MINIMUM NUMBER OF STUDENTS NEEDED TO GENERATE REPORTS

To ensure confidentiality of individual student results and discourage generalizations about school performance based on very small populations, OPI has established 10 as the minimum number of students for which performance-level results are reported in any particular subgroup. Only the number of students ("N") in each subgroup are reported on the system and school reports.

Consequently, schools with a very small number of students enrolled in a grade that was tested may not show performance-level results in some sections of their school report. A school report was generated for any school that tested fewer than 10 students in a particular grade, and results for these students are included in system- and/or state-level results.

## STUDENTS ELIGIBLE FOR EXCLUSION FROM SCHOOL, SYSTEM, AND STATE REPORTS

All students in accredited schools are required to participate in either the CRT or CRT-Alternate Assessment; however, the scores of the students in the following categories were excluded from the calculation of averages:

- LEP students enrolled for the first time in a U.S. school,
- foreign exchange students,
- students not enrolled (for example: homeschooled students),
- students enrolled less than 180 hours, and taking a reading, mathematics, or science course,
- students enrolled in a private accredited school,
- students enrolled in a private nonaccredited school, and
- students enrolled in a private nonaccredited Title 1 school.

## THE SCORES

Two types of scores are used to report performance on the CRT and CRT-Alternate Assessments—scaled scores and percentages.

## SCALED SCORES

Results are reported according to levels that describe student performance in relation to Montana's established state standards:
Advanced (A), Proficient (P), Nearing
Proficiency (NP), and Novice (N). Scaled scores in each content area range from 200 to 300. Scaled scores supplement the performance-level results by providing information about the position of a student's results within a performance level.

School- and system-level scaled scores are calculated by computing the average of student-level scaled scores. Students' total number of points on the test are translated into scaled scores using a data analysis process called scaling. Using scaled scores greatly simplifies the task of understanding how a student performed.

### **Percentages**

Percentages are another way to report the results of the test. "Percentage" refers to the percentage of questions answered correctly; the percent correct is simply the percentage of test questions that each student answered correctly. It is important to note that the "percentage" correct does not directly corrolate to the scale score. For more information, see Appendix A.

## CRT AND CRT-ALTERNATE REPORTS

The following reports of student, school, and system results are each provided for the CRT and the CRT-Alternate.

Report	Description	Explanation and sample can be found in this interpretive guide on page(s):	Method of Delivery
Student Report	This parent/guardian report provides each student's scores for the reading, mathematics, and science tests.	CRT: 4–5 CRT-ALT: 12–13	Hard copy shipped to school
Roster and Item- Level Report	This report provides information about class performance. Each student in the class is listed on the roster, which includes references to each item and the standard it measures.	CRT: 6 CRT-ALT: 14	MARS*
School Summary Report	This three-part summary shows the distribution of scores in each Montana performance level by subgroup, school, system, and state for students enrolled in the school or system for the entire academic school year.	CRT: 7–9 CRT-ALT: 15–17	MARS*
System Summary Report	This two-part summary shows the distribution of scores in each Montana performance level by subgroup, system, and state for students enrolled in the school or system for the entire academic school year.	CRT: 7 CRT-ALT: 15 Separate sample not included. See School Summary Report sample.	MARS*

<sup>\*</sup>MARS (the Montana Analysis and Reporting System) is the secure online reporting system used for delivery of CRT and CRT-ALT test results. If you need assistance accessing MARS, contact the OPI assessment staff. (Contact information is provided on the inside of the cover page of this document.)

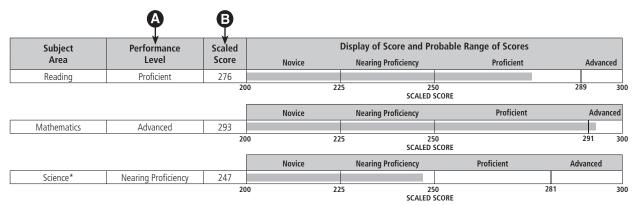
## PART I: THE CRT REPORTS

## CRT STUDENT REPORT

This parent/guardian report provides each student's scores for the reading, mathematics, and science tests. The chart on page 2 of the Student Report, "Scaled Scores on the CRT,"

reflects the student's performance level—A—and scaled score—B—for reading, mathematics, and science. Please refer to the performance-level descriptors on the back cover of the Student Report or on page 10 in this guide for additional information and resources.

## Scaled Scores on the CRT



Contact your student's school for more information about the following symbols:

- † Student did not complete the assessment.
- § Student took non-standard accommodation.

The chart on page 2 of the Student Report, "This Student's Performance in Content Area Standards," shows the standard for each content area assessed—**©**; points possible

for the number of items, or questions, given — **(D)**; the student percentage— **(E)**; and the state percentage— **(E)**.

## **This Student's Performance in Content Area Standards**

- "	Total	Student	Points Earned
Reading	Possible Points	% of Points Earned	Average State %
Standard 1	21	12	68
Standard 2	19	11	62
Standard 3	This standard is	not measurable	in a statewide assessment.
Standard 4	10	7	53
Standard 5	10	8	64

	Total Possible	Student	Points Earned
Science*	Points	% of Points Earned	Average State %
Standard 1	14	10	67
Standard 2	14	9	70
Standard 3	14	12	76
Standard 4	14	5	65
Standard 5	Sub scores are not reported for this standard.		
Standard 6	Sub score	es are not repor	ted for this standard.

	Total Possible	Student	Points Earned
Mathematics	Points	% of Points Earned	Average State %
Standard 1		is standard is as frameworks of	
Standard 2	22	18	59
Standard 3	8	5	62
Standard 4	10	8	62
Standard 5	10	7	63
Standard 6	8	7	77
Standard 7	8	5	58

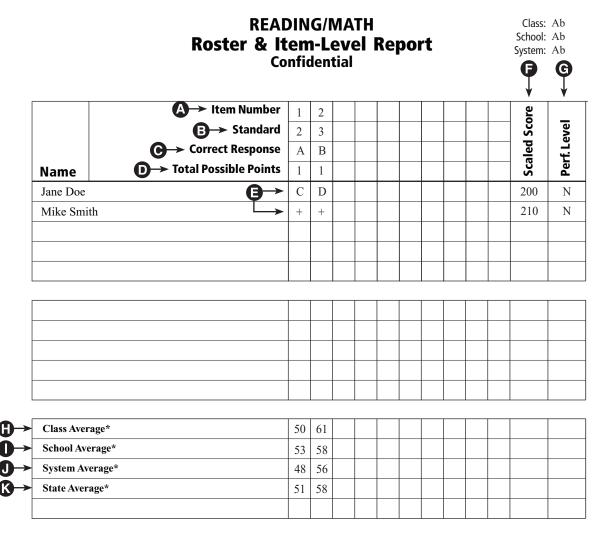
The standards for each content area can be found on the back of this report. \*Science is assessed at grades 4, 8, and 10 only.

Contact your student's school for more information about the following symbols:

<sup>†</sup> Student did not complete the assessment. § Student participated with a non-standard accommodation. \*\*Student did not participate.

## CRT ROSTER & ITEM-LEVEL REPORT

The Roster & Item-Level Report is presented by content area, and can be found on MARS. It provides information about class performance. Each student in the class is listed on the roster. Each common item on the test—A; the Montana content standard each item is measuring—B; the correct answer, or response—C; and the total number of possible points—D—are presented along the top of the roster. Beside the name of the



<sup>†</sup> Student did not complete the assessment.

<sup>§</sup> Student took non-standard accommodation. ¥ Not in school and/or district for full academic year

<sup>\*</sup> Some students were excluded from aggregations (averages) pursuant to Decision Rules.

## CRT School and System Summary Reports

The School and System Summary Reports are presented by content area and provide information at the school and system level. These reports can be found on MARS. The first chart, "Distribution of scores"—(A), shows the distribution of scores in each performance level: Advanced (A), Proficient (P), Nearing Proficiency (NP), and Novice (N). The first column, "Scores"—(B), represents the scaled score.

The "School," "System," and "State" columns are each divided into three columns that represent the number of students ("N") and the percentage of students receiving each scaled score point— **©**. The last column, "% of Students in Cat."— **D**, represents the total percentage of students within the designated performance level.

The second chart, "Subtest results"—**⑤**, reports the total points and average points earned for each content standard.

The third chart, "Results for Subgroups of Students"— , disaggregates student data in several ways—by gender, ethnicity, school programs, etc. This data helps measure the effectiveness of instructional programs for different groups in a school. In addition, subgroup data identifies instructional practices and program characteristics that may be more effective. Finally, subgroup data enables educators to identify factors that appear to relate to performance, and to compare students statewide with respect to those factors.

Performance-level results were not reported if less than 10 students were assessed. Only the number of students ("N") in each category with less than 10 students assessed was reported.

## MontCAS CRT

School: X System: X Grade: 4

Grade:

Reading

# **School Summary Report**

## ♠ I. Distribution of scores

			School			System			State	
Perf. Level	Scores	N	% of Students	% of Students in Cat.	z	% of Students	% of Students in Cat.	Z	% of Students	% of Students in Cat.
	297–300									
pə	294–296									
ouen	290–293									
bΑ	287–289									
	283–286									
	276–282									
ţuə	270–275									
ioif	263–269									
Pro	257–262									
	250-256									
ίου	245–249									
əisif	240–244									
or9 (	235–239									
guine	230–234									
ЭN	225–229									
	220-224									
9:	215–219									
oivo	210–214									
N	205–209									
	200–204									

## **∃→** II. Subtest results

		-	Points	Avera	Average Points Earned	arned
	<b>7</b>	Keading	Possible	School	System	State
	Tot	Total Points	09			
		<ol> <li>Students construct meaning as they comprehend, interpret, and respond to what they read.</li> </ol>	24			
	7	<ol> <li>Students apply a range of skills and strategies to read.</li> </ol>	16			
Standards	mi snipniipic	Students set goals, monitor, and evaluate their reading progress.	This sta	andard is satewide	This standard is not measureable in a statewide assessment.	reable ent.
	4	<ul> <li>Students select, read, and respond to print and nonprint material for a variety of purposes.</li> </ul>	11			
	ī.	Students gather, analyze, synthesize, and evaluate information from a variety of sources, and communicate their findings in ways appropriate for their purposes and audiences.	6			

## **CRT Performance-Level Descriptors**

Advanced
This level denotes superior performance.

Proficient
This level denotes solid academic performance for each benchmark. Students reaching this level have femonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.

Nearing Proficiency
This level denotes that the student has partial mastery or prerequisite knowledge and skills fundamental for proficient work at each benchmark.

Novice
This level denotes that the student is beginning to attain the prerequisite knowledge and skills that are fundamental for work at each benchmark.

**←○** 

2008 MontCAS CRT and CRT-Alternate Interpretive Guide

## **MontCAS CRT**

**Confidential** 

School Summary Report

School: X System: X Grade: X Spring 2008

	-														
			School					System					State		
Reporting Category	Number	% ii N	% in NP	% in P	% in A	Number	% ii N	% in NP	% in P	% in A	Number	% ri N	% in NP	% in P	ਂ .⊑
All Students															
Gender															
Male															
Female															
Ethnicity															
American Indian or Alaska Native															
Asian															
Hispanic															
Black or African American															
Native Hawaiian or Other Pacific Islander															
White															
Significant Cognitive Disability															
Special Education															
Students with a 504 Plan															
Title I (optional)															
Tested with Standard Accommodation															
Tested with Non-Standard Accommodation															
Alternate Assessment		<u>+</u>	a student ii	your syste	em or schoo	If a student in your system or school took the CRT-Alternate, please refer to Table III on the CRT-Alternate System or School Summary Report	T-Alternate	, please ref	er to Table I	II on the CF	T-Alternate	System or	School Sum	ımary Repo	z
Migrant															
Gifted/Talented															
LEP/ELL															
Former LEP Student															
LEP Student Enrolled for First Time in a U.S. School						Performa	nce levels	Performance levels are not reported for 1st year LEP students	rted for 1st	year LEP st	udents				
Free/Reduced Lunch															
Special Education Disability(ies):															
Autism															
Cognitive Delay															
Deaf-Blindness Impairment															
Deafness															
Emotional Disturbance															
Hearing Impairment															
Learning Disability															
Other Health Impairment															
Orthopedic Impairment															
Speech/Language															
Traumatic Brain Injury															
Visual Impairment															
(10) and the state of the state															

\*Less than ten (10) students were assessed

## CRT Performance-Level Descriptors

### ADVANCED

This level denotes superior performance.

## **PROFICIENT**

This level denotes solid academic performance for each benchmark. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.

## NEARING PROFICIENCY

This level denotes that the student has partial mastery or prerequisite knowledge and skills fundamental for proficient work at each benchmark.

## Novice

This level denotes that the student is beginning to attain the prerequisite knowledge and skills that are fundamental for work at each benchmark.

The above performance-level descriptors are general across all grades and content areas. Performance-level descriptors by grade were reviewed and revised for mathematics and reading during standard setting in the summer of 2006. Performance-level descriptors by grade for science were reviewed and revised during standard setting in the spring of 2008. Performance-level descriptors are available online at www.opi.state.mt.gov/assessment.

## CRT Scaled Score Ranges for Performance Levels

\*For grades 4, 8, and 10, please see page 11. Grade 3

Performance Level	Reading	Mathematics
Advanced	287–300	290–300
Proficient	250–286	250-289
Nearing Proficiency	225–249	225–249
Novice	200–224	200–224

## Grade 5

<b>Performance Level</b>	Reading	Mathematics
Advanced	287–300	289–300
Proficient	250–286	250–288
<b>Nearing Proficiency</b>	225–249	225–249
Novice	200–224	200–224

## Grade 6

Performance Level	Reading	Mathematics
Advanced	289–300	287–300
Proficient	250–288	250–286
<b>Nearing Proficiency</b>	225–249	225–249
Novice	200–224	200–224

## Grade 7

Performance Level	Reading	Mathematics
Advanced	288–300	289–300
Proficient	250–287	250–288
Nearing Proficiency	225–249	225–249
Novice	200–224	200–224

## Grade 4

<b>Performance Level</b>	Reading	Mathematics	Science
Advanced	289–300	291–300	281–300
Proficient	250–288	250-290	250–280
<b>Nearing Proficiency</b>	225–249	225–249	225–249
Novice	200–224	200–224	200–224

## **Grade 8**

<b>Performance Level</b>	Reading	Mathematics	Science
Advanced	289–300	283-300	283-300
Proficient	250–288	250–282	250–282
<b>Nearing Proficiency</b>	225–249	225–249	225–249
Novice	200–224	200–224	200–224

## Grade 10

Performance Level	Reading	Mathematics	Science
Advanced	289–300	281–300	269–300
Proficient	250–288	250-280	250–268
<b>Nearing Proficiency</b>	225–249	225–249	225–249
Novice	200–224	200–224	200–224

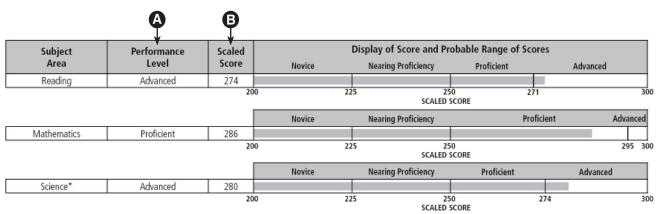
## PART II: THE CRT-ALTERNATE REPORTS

## CRT-ALTERNATE STUDENT REPORT

This parent/guardian report provides each student's scores for the reading and mathematics tests. The chart on page 2 of the

Student Report, "Scaled Scores on the CRT-Alternate," reflects the student's performance level——A—and scaled score——B—for reading, mathematics, and science. Please refer to the perfomance-level descriptors on the back cover of the Student Report or on page 18 in this guide for additional information and resources.

## Scaled Scores on the CRT-Alternate



Contact your student's school for more information about the following symbols:

- † Student did not complete the assessment.
- § Teacher halted the administration of the assessment after the student scored a 0 for three consecutive items on two different test administrations.

The chart on page 3 of the Student Report, "This Student's Performance in Content Area Standards," shows the standard for each

content area assessed—**©**; points possible for the number of items, or questions, given—**D**; the student percentage—**E**; and the state percentage—**F**.

## This Student's Performance in Content Area Standards

	Total D	Student	Points Earned
Reading	Possible Points	% of Points Earned	Average State %
Standard 1	36	36	91
Standard 2	36	36	78
Standard 3	This standard is	not measurable i	n a statewide assessment.
Standard 4	12	10	63
Standard 5	4	4	74

	Total Possible	Student	<b>Points Earned</b>			
Science*	Points	% of Points Earned	Average State %			
Standard 1	4	4	71			
Standard 2	32	31	81			
Standard 3	20	20	80			
Standard 4	36	35	84			
Standard 5	Sub score	es are not reporte	d for this standard.			
Standard 6	Sub score	es are not reporte	d for this standard.			

Contact your student's school for more information about the following symbols: † Student did not complete the assessment. \*\*Student did not participate.

	Total Possible	Student	Points Earned		
Mathematics	Points	% of Points Earned	Average State %		
Standard 1		is standard is ass frameworks of s			
Standard 2	32	29	71		
Standard 3	0				
Standard 4	0				
Standard 5	0				
Standard 6	52	50	66		
Standard 7	16	9	62		

The standards for each content area can be found on the back of this report. \*Science is assessed at grades 4, 8, and 10 only.

## CRT-ALTERNATE ROSTER & ITEM-LEVEL REPORT

The Roster & Item-Level Report is presented by content area, and can be found on MARS. It provides information about class performance. Each student in the class is listed on the roster. Each item (performance indicator) on the test—A, the Montana content standard each item is measuring—B, and the total number of possible points (four for every item)—C—are

presented along the top of the roster. Beside the name of the student is the score the student received for each item—**D**.

The two columns on the right present the scaled score for each student—**E**—and the performance level—**F**—the student attained.

students in the class—**G**, school—**H**, system—**1**, and state—**1**—who answered each item. A legend, with performance-level descriptors, is located on page 18 in this guide.

The end of the report lists the item average for

	Readi <b>Roster &amp; Item-</b> l Confide	Le	ve	l R	ep	OI	rt					Class: A School: A System: A	λb
	<b>A→</b> Item Number	1	2	3	4	5	6	7				ore	
	<b>B</b> → Standard	1	4	4	2	1	1	2				og po	
Name	<b>⊕</b> → Total Possible Points	4	4	4	4	4	4	4				Scaled Score	
Jane Doe	0→	4	4	4	4	3	4	3				295	
Mike Smith		4	4	4	4	2	4	3				270	
Class Averag	e*	4	4	4	4	2	4	3					
School Avera	ge*	4	4	4	4	3	4	3					
System Avera	age*	4	4	4	4	3	3	3					
State Averag	e*	4	4	4	4	3	4	3					

<sup>†</sup> Student did not complete the assessment.

<sup>§</sup> Teacher halted the administration of the assessment after the student scored 0 for three consecutive items on two different test administrations.

<sup>¥</sup> Not in school and/or district for full academic year.

<sup>\*</sup> Some students were excluded from aggregations (averages) pursuant to Decision Rules.

## CRT-ALTERNATE SCHOOL AND SYSTEM SUMMARY REPORTS

The School and System Summary Reports are presented by content area and provide information at the school and system level.

These reports can be found on MARS.

The first chart, "Distribution of scores"—A; shows the distribution of scores in each performance level: Advanced (A), Proficient (P), Nearing Proficiency (NP), and Novice (N).

The first column, "Scores"—B, represents the scaled score.

The "School," "System," and "State" columns are each divided into three columns that represent the number of students ("N") and the percentage of students receiving each scaled score point— ②. The last column, "% of Students in Cat."— ①, represents the total percentage of students within the designated performance level.

The second chart, "Subtest results"—**(E)**, reports the total points and average points earned for each content standard.

The third chart, "Results for Subgroups of Students"— , disaggregates student data in several ways—by gender, ethnicity, school programs, etc. This data helps measure the effectiveness of instructional programs for different groups in a school. In addition, subgroup data identifies instructional practices and program characteristics that may be more effective. Finally, subgroup data enables educators to identify factors that appear to relate to performance, and to compare students statewide with respect to those factors.

Performance-level results were not reported if less than 10 students were assessed. Only the number of students ("N") in each category with less than 10 students assessed was reported.

## MontCAS CRT-Alternate

School: X System: X Grade: 4

Reading

# **School Summary Report**

## ♠→ I. Distribution of scores

			School			System			State	
Perf. Level	Scores	z	% of Students	% of Students in Cat.	Z	% of Students	% of Students in Cat.	Z	% of Students	% of Students in Cat.
	295–300									
pə	289–294									
nev	283-288									
rbΑ	277–282									
	271–276									
	267–270									
ţua	263–266									
ioific	258-262									
Pro	254–257									
	250-253									
ſсу	245–249									
əisif	240-244									
or9 (	235–239									
guine	230–234									
эN	225–229									
	220-224									
ə:	215–219									
oivo	210-214									
N	205-209									
	200–204									

**∃→** II. Subtest results

	2	:	Points	Avera	Average Points Earned	arned
	<b>5</b>	Keading	Possible	School	System	State
	*To	*Total Points	92			
	<del>-</del>	Students construct meaning as they comprehend, interpret, and respond to what they read.	44			
	2.	2. Students apply a range of skills and strategies to read.	40			
Standards	w.	Students set goak, monitor, and evaluate their reading progress.	This st in a	andard is i statewide	This standard is not measureable in a statewide assessment.	reable ent.
	4	Students select, read, and respond to print and nonprint material for a variety of purposes.	4			
	.5	Students gather, analyze, synthesize, and evaluate information from a variety of sources, and communicate their findings in ways appropriate for their purposes and audiences.	4			

--There were too few score points to report on this standard, or no items on the test measured this standard.

# **CRT-Alternate Performance-Level Descriptors**

2008 MontCAS CRT and CRT-Alternate Interpretive Guide

Advanced
The student at the Advanced level accurately and independently demonstrates the ability to carry out comprehensive content-specific performance indicators.

Proficient
The student at the Proficient level, given limited prompting, demonstrates the ability to respond accurately in performing a wide variety of content-specific performance indicators.

Nearing Proficiency
The student at the Nearing Proficiency level, given moderate prompting, demonstrates the ability to respond accurately in performing a narrow set of content-specific performance indicators.

Novice

The student at the Novice level, given physical assistance and/or modeling, is supported to participate in content-specific performance indicators.

**Confidential** 

School Summary Report

School: XX System: XX Grade: 04 Spring 2008

			School					System					State		
Reporting Category		%	%	%	%		%	%	%	%		%	%	%	%
	Number	i. N	in NP	in P	in A	Number	n N	in NP	in P	in A	Number	n N	in NP	in P	in A
All Students	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Gender	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Male															
Female															
Ethnicity															
American Indian or Alaska Native															
Asian															
Hispanic															
Black or African American															
Native Hawaiian or Other Pacific Islander															
White															
Special Education															
Students with a 504 Plan															
Title I (optional)															
Tested with Standard Accommodation															
Tested with Non-Standard Accommodation															
Alternate Assessment															
Migrant															
Gifted/Talented															
LEP/ELL															
Former LEP Student															
LEP Student Enrolled for First Time in a U.S. School															
Free/Reduced Lunch															
Significant Cognitive Disability															
Special Education Disability(ies):															
Autism															
Cognitive Delay															
Deaf-Blindness Impairment															
Deafness															
Emotional Disturbance			(+	400			3	Ţ	4	•		0	+"">""" OUVC > 4+ "> + >   1	+3	
Hearing Impairment		7	ס	9	ס ס	ט ס		) 1)		υ		0		_	
Learning Disability												)	_		
Other Health Impairment															
Orthopedic Impairment															
Speech/Language															
Traumatic Brain Injury															
Visual Impairment															

\*Less than ten (10) students were assessed Visual Impairment



## CRT-ALTERNATE PERFORMANCE-LEVEL DESCRIPTORS

### ADVANCED

The student at the Advanced level accurately and independently demonstrates the ability to carry out comprehensive content-specific performance indicators.

## **PROFICIENT**

The student at the Proficient level, given limited prompting, demonstrates the ability to respond accurately in performing a wide variety of content-specific performance indicators.

## NEARING PROFICIENCY

The student at the Nearing Proficiency level, given moderate prompting, demonstrates the ability to respond accurately in performing a narrow set of content-specific performance indicators.

## Novice

The student at the Novice level, given physical assistance and/or modeling, is supported to participate in content-specific performance indicators.

The above performance-level descriptors are general across all grades and content areas. Performance-level descriptors by grade were reviewed and revised for mathematics and reading during standard setting in the summer of 2006. Performance-level descriptors by grade for science were reviewed and revised during standard setting in the spring of 2008. Performance-level descriptors are available online at www.opi.state.mt.gov/assessment.

## CRT-ALTERNATE SCALED SCORE RANGES FOR PERFORMANCE LEVELS

\*For grades 4, 8, and 10, please see page 19.

## Grade 3

<b>Performance Level</b>	Reading	Mathematics
Advanced	265–300	269–300
Proficient	250–264	250–268
<b>Nearing Proficiency</b>	225–249	225–249
Novice	200–224	200–224

## Grade 5

Performance Level	Reading	Mathematics
Advanced	263–300	297–300
Proficient	250–262	250–296
<b>Nearing Proficiency</b>	225–249	225–249
Novice	200–224	200–224

## Grade 6

Performance Level	Reading	Mathematics
Advanced	275–300	258–300
Proficient	250–274	250–257
<b>Nearing Proficiency</b>	225–249	225–249
Novice	200–224	200–224

## Grade 7

<b>Performance Level</b>	Reading	Mathematics
Advanced	277–300	275–300
Proficient	250–276	250–274
<b>Nearing Proficiency</b>	225–249	225–249
Novice	200–224	200–224

## Grade 4

<b>Performance Level</b>	Reading	Mathematics	Science
Advanced	271–300	295–300	274–300
Proficient	250–270	250–294	250–273
<b>Nearing Proficiency</b>	225–249	225–249	225–249
Novice	200–224	200–224	200–224

## **Grade 8**

<b>Performance Level</b>	Reading	Mathematics	Science
Advanced	269–300	273–300	271–300
Proficient	250–268	250–272	250–270
<b>Nearing Proficiency</b>	225–249	225–249	225–249
Novice	200–224	200–224	200–224

## Grade 10

<b>Performance Level</b>	Reading	Mathematics	Science
Advanced	278–300	265–300	269–300
Proficient	250–277	250–264	250–268
Nearing Proficiency	225–249	225–249	225–249
Novice	200–224	200–224	200–224

## OTHER CRT-ALTERNATE INFORMATION

To review the items (performance indicators) and the standards that correlate to the items on the test, please visit the Measured Progress Web site at www.measuredprogress.org.

For more information about the CRT-Alternate Assessment, please refer to the CRT-Alternate Administration Manual at either of the following Web sites:

The Office of Public Instruction (OPI) at www.opi.state.mt.gov

or

Measured Progress at www.measuredprogress.org

## APPENDIX A

Overview of Assessment Instruments and Procedures

MontCAS CRT of 2008

## MONTANA EDUCATOR INVOLVEMENT IN TEST DEVELOPMENT

Montana educators were actively involved in each aspect of test development—from the development of *Grade Level Expectations*, review of all passages and items for bias and sensitivity issues, review of all items for purposes of alignment, Depth of Knowledge, age appropriateness, and accuracy of content. Montana educators were also involved in two standard setting meetings for math and reading during the summer of 2006, and one standard setting meeting for science in the spring of 2008.

## GRADE LEVEL LEARNING EXPECTATIONS DEVELOPMENT

OPI has developed a common set of grade level expectations, known as the *MontCAS* Comprehensive Assessment System Grade Level Expectations (GLEs) in mathematics, reading, and science. These expectations were developed in response to the requirements of the federally mandated No Child Left Behind Act of 2001 to test all students, beginning in the 2005-2006 academic year, in each of grades 3 through 8 and 10 in mathematics and reading. Science was included in the test beginning in the spring of 2008. Although these sets of GLEs were developed for this purpose, the intent was to build coherent sets of expectations that would focus, not narrow, the curricula; would support good instruction; and would be aligned with Montana's standards.

In the 2004-2005 academic year Reading and Math Grade Level expectations were

developed to expand the current MontCAS
Comprehensive Assessment System Grade
Level Expectations for students with
significant cognitive disabilities. The resulting
documents Montana Standards and Expanded
Benchmarks for Reading and Montana
Standards and Expanded Benchmarks for
Math were used as a framework to create
the CRT Alternate Assessments for reading,
mathematics, and science.

Throughout the development process of both the *MontCAS Comprehensive Assessment System Grade Level Expectations* and the *Montana Standards and Expanded Benchmarks* documents, OPI has relied upon the expertise of Montana educators. These educators have helped guide the development of these documents and have made numerous insightful contributions in an effort to help support meaningful instruction in mathematics, reading, and science.

## ITEM REVIEW COMMITTEE

During the item review process, a committee of local educators was convened to review all of the items developed for the CRT and CRT-ALT. Committee member comments are solicited for each item. Each item is evaluated on the following criteria:

- alignment with the standard being measured;
- appropriateness for grade level;
- · content accuracy; and
- depth of knowledge.

## BIAS AND SENSITIVITY COMMITTEE

A committee of Montana educators also met to review all reading passages and individual test items. Committee members determine if the passages and items are likely to place a particular group of students at an advantage or disadvantage for non-educational reasons; and if so, whether the passage or item should be revised or removed.

## TECHNICAL ADVISORY COMMITTEE

A committee of nationally recognized test and measurement experts (psychometricians) was established and meets regularly to ensure the technical integrity of the CRT and CRT-ALT tests.

## CRT TEST DESIGN

### Types of Items on CRT

In order to provide a valid assessment of students' attainment of the *Grade Level Expectations*, a variety of item types needed to be used. Therefore, multiple-choice items, short-answer items, and constructed-response items were used as follows.

## MULTIPLE CHOICE (ONE POINT)

Multiple-choice items are efficient for testing a broad array of content in a relatively short time span.

## SHORT ANSWER (ONE POINT - MATHEMATICS ONLY)

These open-ended items ask students to generate a short response to a mathematics computation question.

## CONSTRUCTED RESPONSE (FOUR POINTS)

This is a more complex item type that requires students to give a longer response to items related to a reading passage or solve multi-step mathematics problems.

## COMMON AND FIELD TEST ITEMS

There are eight versions, or forms, of the CRT created for each grade level tested in reading, mathematics, and science. Half of the items in each of the CRT forms were the same in every form, or were "common" to all forms of the test. All individual student results (performance levels, scaled scores, content area subscores) and school results are based on only common items. The other half of the items in each form were field tested. "Field testing" means distributing a large number of items among the different forms of the test. This approach allows for field testing of new items for subsequent years' tests and also allows some items to be administered in successive years for purposes of equating the tests from year to year.

50% of mathematics and reading common items, and 100% of science common items are publicly released following each year's test administration to inform local curriculum and instruction. Released common items are replaced each year with some of the items from the previous year's field tested section.

## CRT-ALT TEST DESIGN

To provide an option for participation of all students in the state's accountability system, including those for whom a paper and pencil test is not appropriate, Montana has developed the Criterion-Referenced Test-Alternate (CRT-Alternate). It is expected that only those Individuals with Disabilities Education Act (IDEA)-eligible students with the most significant cognitive disabilities will participate in the CRT-Alternate. The CRT-Alternate consists of test activities in reading and math for students in grades 3 through 8 and 10, and in science for grades 4, 8, and 10. The components of the test are identified below to provide an overview of the test and an introduction to terminology used to describe the test's structure. Each component of the test is described in detail in the Administrator's Manual

## RUBRIC

The scoring rubric is a matrix that describes various levels of achievement for each test item. It incorporates increasing levels of teacher support designed to elicit a correct response from the student. The rubric incorporates a numerical scale that extends from 4 to 0.

## Scoring

The scoring system is guided by the rubric. Student performance on each item is scored based on the amount of assistance required to elicit the correct response. Grade-specific scoring rules guide the administrator if the student is unresponsive, uncooperative, or repeatedly unsuccessful with test items.

## SCAFFOLDING

Scaffolding is a systematic process of providing increasing levels of assistance on each test item. The test booklet provides teacher instruction and suggested language to scaffold each test item.

## Scoring

In May 2008, more than 800,000 Montana responses were processed and scored at Measured Progress. The scoring activities that were used to produce the results for the CRT reports are described below.

Scoring was separated into the following three major tasks:

- scoring of responses to multiple-choice items:
- scoring of responses to short-answer items; and
- scoring of responses to constructedresponse items.

## Scoring of Multiple-choice Items

Multiple-choice items were machine-scored using digital scanning equipment. Correct responses were assigned a score of one point each; incorrect or blank responses were assigned a score of zero points each.

## Scoring of Short-answer and Constructed-response Items

Short-answer and constructed-response items were scored by scorers employed by Measured Progress. Short-answer items were given a score of zero or one. Constructed-response items were given a score from zero to four. Zeros are employed when a student produces some work, but the work is totally wrong or irrelevant, or if he or she leaves the item blank. For purposes of aggregating item results, blanks and zeros both count as zero points towards a student's score.

The work in preparation for scoring student responses included:

- development of scoring guides (rubrics)
   by content specialists (educators) from
   the Montana and Measured Progress's test
   developers, and
- selection of "benchmark" responses—
   examples of student work at different score
   points for each item—that were used in
   training and continuous monitoring of
   scorer accuracy.

Scorer training consisted of:

- review of each item and its related content and performance standard;
- review and discussion of the scoring guide and multiple sets of benchmark responses for each score point; and
- qualifying rounds of scoring in which scorers needed to demonstrate a prescribed level of accuracy.

## SETTING STANDARDS FOR PERFORMANCE ON THE CRT AND CRT-ALT TESTS

Standard setting is the process of determining the minimum or "threshold" score for each performance level, grade, and subject for which results are reported. The multistep process of setting standards for the CRT and CRT-ALT began with creation of performance-level descriptors.

Standard-setting panels were convened at each grade level in reading and mathematics (3–8

and 10) and science (4, 8, and 10). More than 400 Montana educators, invited to participate by OPI, have composed standard-setting panels in order to set standards in each content area.

During June 10 through 12, 2008, OPI convened panels of educators to participate in a standard-setting process for CRT and CRT-ALT science assessments in grades 4, 8, and 10. Standards were set for reading and mathematics during the summer of 2006 for both the CRT and CRT-ALT assessments in grades 3 through 8, and 10.

A challenging aspect of standard setting is that many methods exist to set standards and establish cut points. With this in mind, OPI, in consultation with the Technical Advisory Committee and Measured Progress, determined that judgments would be employed for setting standards on the tests.

Upon completion of the data gathering phases of standard setting described above and recommendations from the Technical Advisory Committee, the Superintendent of Public Instruction approved the recommended cut points.

## CRT: BOOKMARK STANDARD-SETTING PROCESS

The bookmark method of standard setting is a multistep process. First, participants took the CRT test as though they were students. Then, as a group, the panels reviewed the performance-level descriptors, paying special attention to differentiating between knowledge, skills, and abilities typically associated with students described as being on the borderline

between performance levels. Panelists then looked at "Ordered Item Booklets," which show each common item on the test in order from easiest to hardest. The "Ordered Item Booklet" also includes actual student work samples for each score point for constructedresponse items. Participants made decisions about which items would differentiate between students at each performance level and placed a "bookmark" between those items to represent the cut point between performance levels. Small- and large-group discussions followed regarding the knowledge, skills, and abilities associated with the items around each cut point. Participants had the opportunity to change their placement of the "bookmark" based on these discussions. Finally, panelists had the opportunity to provide feedback on the performance-level descriptors.

## CRT-ALT: Body of Work Standard-Setting Process

Standard-setting panels were convened at each grade level in reading and mathematics (3–8 and 10) and science (4, 8, and 10). Panels were comprised of diverse groups of Montana educators, invited to participate by OPI, with expertise in Special Education and/or reading, mathematics, and science.

The body of work method of standard setting for the Alternate Assessment is a multistep process. First, participants reviewed the CRT-ALT test and the scoring rubric, which determined how various responses to each item were scored. Then, as a group, the panels reviewed the performance-level descriptors, paying special attention to differentiating

between knowledge, skills, and abilities typically associated with students assigned to each of the performance levels. Panelists then looked at "Ordered Item Lists," which show each common item on the test in order from easiest to hardest. The "Ordered Item List" participants were also given a set of "Student Profiles," which showed the average response on each item of the entire test for students who received a score within a specific range. Participants reviewed each of the Student Profiles and made an individual determination as to which Performance Level each Student Profile should be assigned. Large-group discussions followed regarding the knowledge, skills, and abilities associated with the Student Profiles in each Performance Level. Participants had the opportunity to change their placement of any or all Student Profiles based on these discussions. Finally, panelists had the opportunity to provide feedback on the performance-level descriptors.

## REPORTING

The tests were designed to measure student performance against the learning goals described in *Montana Content Standards*. Consistent with this purpose, primary results on the tests are reported in terms of performance levels that describe student performance in relation to these established state standards. There are four performance levels: Advanced, Proficient, Nearing Proficiency, and Novice. Students receive a separate performance-level classification (based on total scaled score) in each content area (mathematics, reading, and science) in which they complete a test. There is no overall

classification of student performance across content areas. School- and system-level results are reported as the number and percentage of students attaining each performance level at each grade level tested.

In addition to performance levels, CRT and CRT-ALT results are also reported as scaled scores. The major purpose of including scaled scores in reports is to enhance the level of feedback provided to students, parents, and teachers. Each of the four performance levels encompasses a range of student performance. A student whose test performance is just above Nearing Proficiency and a student whose level of performance is slightly below Proficient are both classified as Nearing Proficiency. However, scaled-score results are more precise since they pinpoint a student's performance (score) on the continuum of scores within the performance levels. The additional information provided by scaled scores is critical in forming the most accurate impression of performance possible.

## TRANSLATING RAW SCORES TO SCALED SCORES AND PERFORMANCE LEVELS

CRT and CRT-ALT scores in each content area are reported on a scale that ranges from 200 to 300. Scaled scores supplement the performance-level results by providing information about the position of a student's

results within a performance level. School- and system-level scaled scores are calculated by computing the average of student-level scaled scores. Students' raw scores, or total number of points, on the tests are translated to scaled scores using a data analysis process called scaling. Scaling simply converts raw points from one scale to another. In the same way that the same temperature can be expressed on either the Fahrenheit or Celsius scales and the same distance can be expressed either in miles or kilometers, student scores on the tests could be expressed as raw scores (i.e., number right) or scaled scores.

It is important to note that converting from raw scores to scaled scores does not change the students' performance-level classifications. Given the relative simplicity of raw scores, it is fair to question why scaled scores are used in reports instead of raw scores. Foremost, scaled scores offer the advantage of simplifying the reporting of results across content areas, grade levels, and subsequent years. Because the standard-setting process typically results in different cut scores across content areas on a raw score basis, it is useful to transform these raw cut scores to a scale that is more easily interpretable and consistent. Using scaled scores greatly simplifies the task of understanding how a student performed.